

Introduction



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What is Asthma?

In the United States, over 20 million adults and 9 million children have been diagnosed with asthma during their lifetime and over 16 million adults are currently living and coping with the disease.^{12,14,57} Asthma is one of the most common chronic diseases. It affects the lungs, causing repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. While a person may experience asthma attacks only when their lungs are irritated, once they have been diagnosed with asthma, it is with them for the rest of their lives.⁵⁷



An asthma attack or episode is an inflammation of the airways.⁵⁸ Airways are the paths that carry air to the lungs. As the air moves through the lungs, the airways become smaller. During an attack, the sides of the airways in the lungs become inflamed and swollen. Muscles around the airways tighten and less air passes in and out of the lungs. Excess mucus forms in the airways, clogging them even more. The attack can include coughing, chest tightness, wheezing, and trouble breathing.⁵⁷ An asthma attack is caused by environmental factors, including allergens, irritants, viral infections, or even adverse weather conditions (e.g. temperature).⁵⁸

Asthma is a Public Health Priority

Asthma is a public health priority for many different reasons. Environmental factors have a significant impact on asthma episodes and attacks. Working to recognize and potentially control some of these factors can lead to better asthma management and improved quality of life. A solid asthma medical infrastructure is also necessary to improve the quality of life for persons with asthma. The North Carolina Asthma program needs to work with physicians and other health care professionals to ensure they provide their patients with asthma management plans and proper asthma education, the number of visits to the emergency room and asthma hospitalizations can be reduced. Finally, asthma is a policy issue. Supporting policies that allow children to carry asthma rescue medications to school and to self-administer them, as well as providing reimbursement to certified asthma educators are just a few of the policies that are being looked at not only on the local level, but also on the national level.

Although effective asthma treatment and management practices do exist, not all persons with asthma have access to them. Socio-economic status, lack of health insurance, not receiving an asthma management plan from their health care provider, and failure to recognize the severity of their disease can all impact a person's access to adequate asthma healthcare. As a result of poor asthma management, there were almost 2 million emergency department visits for asthma nationally in 2002. Also, in the same year, there were 484,000 hospitalizations due to a primary cause of asthma.¹² An economic analysis

commissioned by the American Lung Association estimated the 2004 annual cost for asthma in the United States at \$16.1 billion dollars.⁴²

Asthma in North Carolina

The *Burden of Asthma in North Carolina* is the first comprehensive statewide asthma surveillance report conducted in North Carolina. This report describes asthma in North Carolina in terms of morbidity, management and quality of life, health care utilization, and mortality. To do this, several state and national surveys and databases were utilized to help ascertain a total picture of the disease of asthma and the effects the disease has on persons afflicted with it.

This report will provide the baseline data that will be used to help focus asthma interventions, programs, and policies. A follow-up to this initial report will be issued regularly to review the trends in morbidity, management, health care utilization, and mortality, and new data sources and information will be included as they become available. The *Burden of Asthma in North Carolina* report will be a major factor in tracking and reporting the progress of the North Carolina Asthma Program and our many partners and stakeholders as we work together to reduce the burden of asthma in our state.



